

at least one third thin film transistor disposed at least one driver circuit over said substrate;

at least one fourth thin film transistor disposed at a sensor section over said substrate;

a first insulating layer over said first thin film transistor, said second thin film transistor, said third thin film transistor and said fourth thin film transistor;

a photodiode electrically connected with said fourth thin film transistor through said first insulating film, disposed at said sensor section over said first insulating layer; and

a second insulating layer over said photodiode,

wherein said sensor section senses environmental illuminance.

a
and.

49. (New) A electronic device according to claim 47 further comprising a correction circuit over said substrate.

50. (New) A electronic device according to claim 48 further comprising a correction circuit over said substrate.

REMARKS

Applicants will address each of the Examiner's rejections in the order in which they appear in the Office Action.

Claim Rejections – 35 USC §102

In the Office Action, the Examiner rejects Claims 1 and 42 under 35 USC §102(b) as being anticipated by Shinomura et al.

While Applicants respectfully traverse this rejection, in order to advance the prosecution of this application, Claims 1 and 42 (and those claims dependent thereon) have been canceled herein. Accordingly, it is requested that this rejection now be withdrawn.

Claim Rejections – 35 USC §103

The Examiner also rejects Claims 2-41 and 43-46 under 35 USC §103 as being unpatentable over Shinomura et al. in view of Gleason. This rejection is respectfully traversed.

In general, the broad concept of the present invention is that a pixel section and a sensor section sensing environmental illuminance are formed over the same insulating body (substrate), and the sensor section is disposed outside the pixel section (which is shown e.g. in the drawings of the present application). Applicants have amended the claims to clearly recite these features.

In the Office Action, the Examiner admits that Shinomura does not disclose a light emitting device comprising a pixel section and a sensor section which are formed on the same insulating body. The Examiner then cites Gleason and states that Gleason is being cited to allegedly teach a light-emitting device comprising a pixel section and a sensor section which are formed on the same insulating body.

However, Gleason discloses an active matrix pixel having a photodiode 316. See e.g. col. 3, lns. 15-16 in Gleason. Accordingly, Applicants respectfully submit that Gleason does not disclose or suggest the claimed invention, e.g. that the sensor section is disposed outside the pixel section. Hence, for at least this reason, the claims of the present application are patentable over these references.

In addition, Gleason states that the photodiode therein is provided to detect a portion of the luminous flux that is generated by a light emitting diode 312. See e.g. col. 3, lns. 38-42 in Gleason. In contrast, the photodiode in Shinomura is provided to detect ambient light. See e.g. col. 4, lns. 12-14 in Shinomura. Applicants respectfully submit that it would not have been

obvious to one skilled in the art to combine Shimoumura and Gleason for at least the reason that each reference discloses photodiodes having different purposes from each other. Accordingly, the combination of these references is improper, and the rejection based thereon should be withdrawn.

For at least the above-stated reasons, it is respectfully submitted that the claimed invention is patentable over the cited references, and it is requested that the section 103 rejection be withdrawn.

New Claims

Applicants are adding new Claims 47-50 herewith. Independent Claim 47 is believed to be supported by Embodiment 3 and Fig. 6 while independent Claim 48 is believed to be supported by Embodiment 3 and Fig. 7 of the present application.

In light of the cancellation of the claims herein, no fee is believed due for these new claims. If such a fee is due, please charge our deposit account 50/1039.

Conclusion


It is respectfully submitted that the present application is in a condition for allowance and should be allowed.

If any fee is due for this amendment, please charge our deposit account 50/1039.

Favorable reconsideration is earnestly solicited.

Respectfully submitted,

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Marked-up copy of the amendments made herein:

IN THE CLAIMS:

Please amend the claims as follows:

Cancel Claim 1.

2. (Amended) A light emitting module comprising:

a light emitting device comprising a pixel section and a sensor section which are formed on [the] a same insulating body; and

a correction circuit connected to the light emitting device[; and] ,

wherein said correction circuit [means for adjusting] adjusts luminance of a light emitting element of the pixel section according to environmental illuminance sensed by the sensor section and for keeping a ratio of the luminance to the environmental illuminance at a constant value by the correction circuit,

wherein said sensor section is disposed outside said pixel section.

Cancel Claim 3.

4. A light emitting module according to claim 2, wherein the sensor section includes a thin film photodiode.

5. (Amended) A light emitting module comprising:

a light emitting device comprising a pixel section and a sensor section sensing environmental illuminance which are formed on [the] a same insulating body; and

a correction circuit connected to the light emitting device,

wherein the pixel section comprises a thin film light emitting element, and
wherein the sensor section includes a thin film photodiode, and
wherein the sensor section is disposed outside said pixel section.

6. (Amended) A light emitting module comprising:

a light emitting device comprising a pixel section, a driving circuit, and a sensor section sensing environmental illuminance which are formed on [the] a same insulating body;
and

a correction circuit connected to the light emitting device,
wherein the pixel section includes a thin film light emitting element, and
wherein the sensor section includes a thin film photodiode, and
wherein said sensor section is disposed outside said pixel section.

7. A light emitting module according to claim 2, wherein the correction circuit comprises an arithmetic circuit for calculating the luminance of the light emitting element based on a signal transmitted from the sensor section.

8. A light emitting module according to claim 5, wherein the correction circuit comprises an arithmetic circuit for calculating the luminance of the light emitting element based on a signal transmitted from the sensor section.

9. A light emitting module according to claim 6, wherein the correction circuit comprises an arithmetic circuit for calculating the luminance of the light emitting element based on a signal transmitted from the sensor section.

Cancel Claim 10.

11. A light emitting module according to claim 4, wherein the light emitting element and the thin film diode are electrically connected to a transistor.

12. A light emitting module according to claim 5, wherein the light emitting element and the thin film photodiode are electrically connected to a transistor.

13. A light emitting module according to claim 6, wherein the light emitting element and the thin film photodiode are electrically connected to a transistor.

Cancel Claim 14.

15. A light emitting module according to claim 11, wherein the transistor is a bottom gate type thin film transistor.

16. A light emitting module according to claim 12, wherein the transistor is a bottom gate type thin film transistor.

17. A light emitting module according to claim 13, wherein the transistor is a bottom gate type thin film transistor.

Cancel Claim 18.

19. A light emitting module according to claim 2, wherein the light emitting element is an EL element.

20. A light emitting module according to claim 5, wherein the light emitting element is an EL element.

21. A light emitting module according to claim 6, wherein the light emitting element is an EL element.

Cancel Claim 22.

23. A light emitting module according to claim 2, wherein the light emitting module is included in one of a portable telephone, a video camera, a digital camera, a computer, and a portable telephone.

24. A light emitting module according to claim 5, wherein the light emitting module is included in one of a portable telephone, a video camera, a digital camera, a computer, and a portable telephone.

25. A light emitting module according to claim 6, wherein the light emitting module is included in one of a portable telephone, a video camera, a digital camera, a computer, and a portable telephone.

Cancel Claim 26.

27. A light emitting module according to claim 2, wherein said sensor section comprises at least one optical sensor comprising a photodiode, a reset TFT, a buffer TFT, and a constant current TFT.

28. A light emitting module according to claim 5, wherein said sensor section comprises at least one optical sensor comprising a photodiode, a reset TFT, a buffer TFT, and a constant current TFT.

29. A light emitting module according to claim 6, wherein said sensor section comprises at least one optical sensor comprising a photodiode, a reset TFT, a buffer TFT, and a constant current TFT.

Cancel Claim 30.

31. A light emitting module according to claim 2, wherein said sensor section comprises at least one optical sensor comprising a photodiode, a first reset TFT, a buffer TFT, a load capacitance, and a second reset TFT.

32. A light emitting module according to claim 5, wherein said sensor section comprises at least one optical sensor comprising a photodiode, a first reset TFT, a buffer TFT, a load capacitance, and a second reset TFT.

33. A light emitting module according to claim 6, wherein said sensor section comprises at least one optical sensor comprising a photodiode, a first reset TFT, a buffer TFT, a load capacitance, and a second reset TFT.

Cancel Claim 34.

35. A light emitting module according to claim 2, wherein said sensor section comprises at least one optical sensor comprising a photodiode, a reset TFT, a buffer TFT, and a load resistance or a load capacitance.

36. A light emitting module according to claim 5, wherein said sensor section comprises at least one optical sensor comprising a photodiode, a reset TFT, a buffer TFT, and a load resistance or a load capacitance.

37. A light emitting module according to claim 6, wherein said sensor section comprises at least one optical sensor comprising a photodiode, a reset TFT, a buffer TFT, and a load resistance or a load capacitance.

Cancel Claim 38.

39. A light emitting module according to claim 2, wherein said sensor section comprises at least one optical sensor comprising a photodiode and a reset TFT.

40. A light emitting module according to claim 5, wherein said sensor section comprises at least one optical sensor comprising a photodiode and a reset TFT.

41. A light emitting module according to claim 6, wherein said sensor section comprises at least one optical sensor comprising a photodiode and a reset TFT.

Cancel Claim 42.

43. (Amended) A method for driving a light emitting module which comprises a light emitting device comprising a pixel section and a sensor section disposed outside said pixel section which are formed on [the] a same insulating body and a correction circuit connected to the light emitting device, said method comprising the steps of:

adjusting luminance of the light emitting element of the pixel section according to environmental illuminance sensed by the sensor section; and

keeping a ratio of the luminance to the environmental illuminance at a constant value by correction circuit.

44. (Amended) An electronic device comprising at least one electro luminescence display device, said display device comprising:

a substrate;

at least one pixel comprising an electro luminescence element over said substrate;

at least one first thin film transistor disposed at said pixel for selecting said pixel;

at least one second thin film transistor disposed at said pixel for supplying an electric current through said electro luminescence element;

a data signal side driver circuit for supplying a data signal to said pixel;

a gate signal side driver circuit electrically connected to a gate electrode of said first thin film transistor, wherein each of said data signal side driver circuit and said gate signal side driver circuit comprises third thin film transistors formed over said substrate; and

a sensor section for sensing a light intensity of an environment formed outside said pixel over said substrate, wherein said sensor comprises a photodiode and at least one fourth thin film transistor;

a correction circuit for receiving an output signal from said sensor section and correcting luminance of said electro luminescence element in accordance with said output signal.

45. An electronic device according to claim 44, wherein said correction circuit is provided over said substrate.

46. An electronic device according to claim 44 wherein said electric device is one of a portable telephone, a video camera, a digital camera, a computer, and portable telephone. --

Please add the following new claims:

47. (New) An electronic device comprising:

- a substrate;
- at least one pixel comprising an electro luminescence element over said substrate;
- at least one first thin film transistor disposed at said pixel for selecting said pixel;
- at least one second thin film transistor disposed at said pixel for supplying an electric current through said electro luminescence element;
- at least one third thin film transistor disposed at least one driver circuit over said substrate;
- at least one fourth thin film transistor disposed at a sensor section over said substrate;
- a first insulating layer over said first thin film transistor, said second thin film transistor, said third thin film transistor and said fourth thin film transistor;

a second insulating layer over said first insulating layer; and
a photodiode electrically connected with said fourth thin film transistor through said first insulating layer and said second insulating layer, and disposed at said sensor section over said second insulating layer,
wherein said sensor section senses environmental illuminance.

48. (New) An electronic device comprising:
a substrate;
at least one pixel comprising an electro luminescence element over said substrate;
at least one first thin film transistor disposed at said pixel for selecting said pixel;
at least one second thin film transistor disposed at said pixel for supplying an electric current through said electro luminescence element;
at least one third thin film transistor disposed at least one driver circuit over said substrate;
at least one fourth thin film transistor disposed at a sensor section over said substrate;
a first insulating layer over said first thin film transistor, said second thin film transistor, said third thin film transistor and said fourth thin film transistor;
a photodiode electrically connected with said fourth thin film transistor through said first insulating film, disposed at said sensor section over said first insulating layer; and
a second insulating layer over said photodiode,
wherein said sensor section senses environmental illuminance.

49. (New) A electronic device according to claim 47 further comprising a correction circuit over said substrate.

50. (New) A electronic device according to claim 48 further comprising a correction circuit over said substrate.